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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/799,575 | 03/12/2004 | John T. Strom | 044182 / 308721 | 6463 |

7590 06/28/2006

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| EXAMINER |
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PATEL, PARESH H

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| ART UNIT | PAPER NUMBER |
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2829

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,575

Applicant(s)

STROM, JOHN T.

Examiner

Paresh Patel

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) 8-19 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4 and 7 is/are rejected.
7) ☒ Claim(s) 5-6 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 05/23/2006 have been fully considered but they are not persuasive. Applicant at Remarks pages 6-7 argues that: 1) Hershel does not teach explicitly or impliedly measurement or combination of effects due to fiducial plate, probe card or probe card fixture deflection; 2) Hershel does not teach the deflection of a probe card under the load of a plurality of pins as taught in the present Application; 3) Hershel does not teach or suggest the deflection of fiducial plate, probe card and probe card fixture deflection components in a probe card analyzer system; and 4) Hershel can not be teach -explicitly or impliedly- computing planarity effects due to fiducial plate deflection and combining planarity effect due to probe card deflection and due to probe card fixture deflection as require by independent claim 1. Applicant relies on Hershel's teaching of abstract and lines 36-49 of column 1 (see page 6 of Remarks). Examiner respectfully disagrees with Applicant because, in the office action dated 02/23/2006, Examiner had addressed the limitations as argued above. Since above arguments do not compare addressed limitations of Hershel reference (with respect to rejected claims), it is believed that above arguments are not true.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2829

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Hershel et al. (US 6710798).

Regarding claim 1, Hershel et al. (hereafter Hershel) in fig. 1, 3 and 9 discloses a method of obtaining planarity measurements in a probe card analysis system [30]; said method comprising:

computing [using 40, see lines 17-23 of column 6] planarity effects due to fiducial plate [50] deflection;

combining planarity effects [using 24 and 14] due to probe card [lines 46-67 of column 5] deflection and due to probe card fixture [20] deflection; and

responsive to said computing and said combining, calculating a load compensated planarity [using program of 14, see lines 40-56 of column 8] for said probe card.

Regarding claim 2, Hershel discloses the method of claim 1 further comprising accounting [using 34, 54, see fig. 3] for planarity effects due to stage deflection [lines 9-30 of column 7] and wherein said calculating is further responsive to said accounting.

Regarding claim 3, Hershel discloses the of claim 2, wherein said accounting comprises utilizing a distance sensor proximate to said stage deflection [lines 31-46 of column 7].

Regarding claim 4, Hershel discloses the method of claim 1 wherein said computing comprises utilizing an optical metrology technique [using 40].

Regarding claim 7, Hershel discloses the method of claim 1 wherein said combining comprises:

obtaining measurements [using 14] of optical planarity and electrical planarity for said probe card;

measuring fiducial plate deflection [using 40] at first electrical contact; and responsive to said obtaining and said measuring, computing a combined deflection value for said probe card and said probe card fixture [using 14].

Allowable Subject Matter

4. Claims 5-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: No prior art has been found to meet the limitations of claims 5-6 calling for a method of obtaining planarity measurements in a probe card analysis system, wherein utilizing an optical metrology technique comprises: acquiring image data of a fiducial on said fiducial plate; responsive to said acquiring, identifying deflection data values representative of a deflection of said fiducial plate; and responsive to said identifying, providing correction data values enabling a first order correction of said deflection.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 571-272-1968. The examiner can normally be reached on 8:00 to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha Nguyen can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2829

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Paresh Patel 06/23/06
Primary Examiner
Art Unit 2829

June 23, 2006